

### Remarks

Claims 1-3, 27-32, 72, 74-100, 102, and 103 are pending in the application. Claims 4-26, 73, and 101 were withdrawn from consideration by the Examiner as a result of a restriction requirement. No claims have been amended. No new matter has been added by virtue of this amendment. Reconsideration of the application in view of these remarks is requested. Applicant requests that if independent claims are allowed that withdrawn claims dependent on the allowed claims be entered back into the case.

### Claim Rejections—35 U.S.C. § 102

The Examiner rejects claims 1, 74, 75, and 103 under 35 U.S.C. § 102(b) as being anticipated by Person et al. However, applicant would respectfully ask the Examiner to consider that claim 1 includes the limit, “dicing completely **through** said coil to provide a plurality of short coils.” Claim 103 includes the limit, “dicing **through** said coil to provide a plurality of short coils.”

Person dices **adjacent** his coils at cut marks 112 and at cut marks 114 to separate them from each other; Person does not teach or suggest dicing **through** any coil. Although Person’s blade may cut conductive lines extending from each coil, his blade does not pass **through** any coil. By contrast, as shown in FIG. 1a, the blade of the present invention passes **through** the coil. If Person were to cut in any direction through a coil, as provided in claims 1 and 103, Person would destroy that coil. Thus, Person cannot cut through a coil as provided in claims 1 and 103. Person does not and cannot teach or suggest dicing through a coil.

In addition, Person’s coil is fabricated as a layer of conductor on each board of a stack of boards. This technique is incompatible with forming the coil of conductor and the insulation on a tube as provided in claim 74.

Applicant would respectfully ask the Examiner to consider that a “moveable core,” is a material that can move within the coil, as shown by element 52 in FIG. 4 and in FIGS. 7a-7c of the present invention. In view of Person’s stack of boards, there is no possibility of providing a moveable core within the coil. There is just no open region inside the coil for providing a moveable core. Thus, Person is incompatible with a moveable core claim 75. In addition, Claims 74 and 75 depend on claim 1 and should be allowable if claim 1 is allowable.

Furthermore, with respect to claim 103, “tube outer surface” refers to the outer surface of the tube and is clearly distinguished from an inner surface of the tube. Once assembled, Person’s coil and insulation are inside his termination caps 12, 14; while they

may be "on" the end caps because they rest on an inner surface of the end caps **they are not located on an end cap outer surface**. Thus, claim 103 is further distinguished from Person.

Furthermore, claim 103 says:

"A method of fabricating an electronic device, comprising **in order**, the steps of:"

Thus, the steps (a), (b) or (c) are performed **in order**. That means that step (b) of "forming openings in portions of the insulation on said coil outer surface and exposing conductor in said openings for contacts" is performed after step (a) of "providing a coil." Person does not teach or suggest this sequence. In fact Person teaches the opposite sequence in which **the openings are formed before the coil is formed**.

No openings in insulation on the coil outer surface are formed in Person after the coil is provided. In Person, conductor 32 and conductor 64 (FIG. 1 and 2) extend to end surfaces of monolithic inductor 10. Thus, there is no teaching or suggestion of "forming openings in portions of said insulation on said coil outer surface and exposing conductor in said openings for external contacts." Furthermore, there is no teaching or suggestion of forming insulation covering conductor 32 or conductor 64, so there can be and is no teaching of forming openings in portions of that insulation on the coil outer surface and exposing conductor of said coil for contacts. Thus, the rejection of claims 1 74, 75, and 103 under 35 U.S.C. § 102 as being anticipated by Person has been traversed.

### **Claim Rejections--35 U.S.C. § 103**

The Examiner rejects claim 27 under 35 U.S.C. § 103(a) as being unpatentable over Person et al. However, applicant would respectfully ask the Examiner to consider that claim 27 depends on claim 1, and if claim 1 is allowable, so is claim 27.

The Examiner rejects claims 2, 3, and 100 under 35 U.S.C. § 103(a) as being unpatentable over Person et al in view of Lampe. The Examiner acknowledges that Person does not teach a wire or an insulated wire in which the wire is wound around the tube. The Examiner cites Lampe and states that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Person by forming the electronic device of an inductor in the alternative way, as taught by Lampe, to recognize the benefits of saving manufacturing costs and form an art recognized equivalent inductor."

However, applicant would respectfully ask the Examiner to consider that the

method of Lampe is incompatible with the method of Person. Were the wire winding method of Lampe used for forming the inductor, the method of forming the inductor provided by Person would not be used. Hence, further invention would be required to provide the openings for external contacts provided in claim 1 from which claims 2, 3, and 100 depend: neither reference teaches or suggests "forming openings in portions of said insulation on said coil outer surface and exposing conductor in said openings for external contacts," for an embodiment having wire windings.

The Examiner rejects claims 28-32 under 35 U.S.C. § 103(a) as being unpatentable over Person et al in view of Moyer. The Examiner acknowledges that "Person does not teach a structure of an electronically controllable clamp for resetting position of the core and a structure for holding a position of the core." The Examiner cites Moyer for this missing teaching.

However, applicant would respectfully ask the Examiner to consider that a "moveable core," is a material that can move within the coil, as shown by element 52 in FIG. 4 and in FIGS. 7a-7c of the present invention.

Moyer's invention involves an "air-core coil;" that is, Moyer describes a technique for adjusting inductance of a coil **that does not have a moveable core**. Moyer adjusts position of "some of the turns of coil 20 and causes their linear displacement by sliding them perpendicularly to the coil centerline." The deformations to the coil that Moyer introduces would interfere with movement of such a core if there was one.

On the other hand, Person does not allow for either an air-core coil or "a moveable core within the tube for adjusting inductance of said coil," as provided in claim 75 from which claim 28 depends. Person's coil is fabricated as a layer of conductor on each board of a stack of boards. There is no open region inside the coil for providing a moveable coil. Thus, Person is incompatible with a moveable core and Moyer has no moveable core within his air-core. The technique of Moyer is incompatible with the structure of Person, and therefore the references cannot be combined. In addition, neither reference, individually or in combination, teaches or suggests the idea of "providing a structure for holding position of a core within said tube." Moyer merely provides a structure for holding and moving sections of the coil but not for holding position of a moveable core within.

The Examiner rejects claim 94 under 35 U.S.C. § 103(a) as being unpatentable over Person et al in view of Jennings. The Examiner acknowledges that "Person does not teach enclosing the coil in a housing and hermetically sealing the housing." However, applicant would respectfully ask the Examiner to consider that Jennings does not hermetically seal. The vacuum seal provided in Jennings is merely a temporary seal between the housing and the base for use during the processing step provided in Jennings.

A hermetic seal by contrast is a seal that remains a seal after processing is complete. Furthermore, claim 94 depends on claim 75 which has a moveable core, and neither Jennings nor Person provides a moveable core. And claim 75 itself depends on claims 74 and 1, and neither reference teaches or suggests the limit of dicing through the coil, as described herein above.

The Examiner rejects claims 95-99 under 35 U.S.C. § 103(a) as being unpatentable over Person et al in view of JP '487. The Examiner acknowledges that "Person does not teach forming the openings in the insulation by laser ablating the insulation. Applicant would respectfully ask the Examiner to consider that claims 95-99 depend on claim 75 which has a moveable core, and neither Person nor Jennings nor JP '487 provides a moveable core. And claim 75 itself depends on claims 74 and 1, and neither reference teaches or suggests the limit of dicing through the coil, as described herein above. Furthermore, claim 98 provides a process that is incompatible with the process of Person, since Person does not make contact to the coil by "opening said insulation over a plurality of said turns of wire," as provided in claim 98. Also, a ring-shaped opening provides advantage since contact can be made anywhere along the ring and alignment is not needed. None of the references, individually or in combination teach a ring-shaped opening as the Examiner acknowledges in the office action.

The Examiner rejects claims 76-80, 81-82, 92, and 93 under 35 U.S.C. § 103(a) as being unpatentable over Person et al in view of Jones. The Examiner acknowledges that Person does not teach providing a substrate and surface mounting the coil to the substrate. However, claims 76-80, 81-82, 92, and 93 depend on claim 75 which has a moveable core, and neither Person nor Jones provides a moveable core. And claim 75 itself depends on claims 74 and 1, and neither reference teaches or suggests the limit of dicing through the coil, as described herein above.

The same point applies in responding to the rejection of claims 83-86.

The Examiner rejects claim 102 under 35 U.S.C. § 103(a) as being unpatentable over Jones et al in view of Person et al. The Examiner acknowledges that Jones does not teach the specific steps of (a), (b) or (c) for the component.

Applicant would respectfully ask the Examiner to consider that Person does not supply the missing limit (c) of claim 102, which includes "dicing **through** said coil to provide a plurality of short coils."

As indicated herein above, Person dices **adjacent** his coils at cut marks 112 and at cut marks 114 to separate them from each other; Person does not teach or suggest dicing **through** any coil. Although Person's blade may cut conductive lines extending from each coil, his blade does not pass **through** any coil. By contrast, as shown in FIG.

1a, the blade of the present invention passes **through** the coil. If Person were to cut in any direction through a coil, as provided in claim 102, Person would destroy that coil. Thus, Person cannot cut through a coil as provided in claim 102. Because Person does not and cannot teach or suggest dicing through a coil, the rejection of claim 102, under 35 U.S.C. § 102(b) as being anticipated by Jones in view of Person has been traversed.

Furthermore, claim 102 says:

"A method of fabricating an electronic device, comprising **in order**, the steps of:"

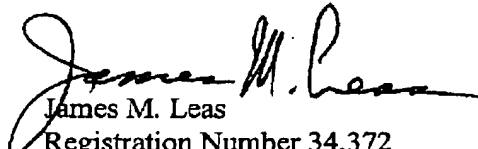
Thus, the steps (a), (b) or (c) are performed **in order**. That means that step (b) of "forming openings in portions of the insulation on said coil outer surface and exposing conductor in said openings for external contact" is performed after step (a) of "providing a coil." Person does not teach or suggest this sequence. In fact, Person teaches the opposite sequence in which the openings are formed before the coil is formed. No openings in insulation on the coil outer surface are formed in Person after the coil is provided.

In Person, conductor 32 and conductor 64 (FIG. 1 and 2) extend to end surfaces of monolithic inductor 10. Thus, there is no teaching or suggestion of "forming openings in portions of said insulation on said coil outer surface and exposing conductor in said openings for external contacts." Furthermore, there is no teaching or suggestion of forming insulation covering conductor 32 or conductor 64, so there can be and is no teaching of forming openings in portions of that insulation on the coil outer surface and exposing conductor of said coil for contacts. Thus, the rejection of claim 102 under 35 U.S.C. § 103 as being unpatentable over Jones in view of Person has been traversed.

It is believed that all the claims are in condition for allowance. Therefore, applicant respectfully requests favorable reconsideration. If there are any questions please call applicant's attorney at 802 864-1575.

Respectfully submitted,

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